

LII.—On new or little-known Birds of North-Eastern Africa.

By Hofrath THEODOR VON HEUGLIN. (Part I.)

(Plate XV.)

I. HYPOTRIORCHIS CASTANONOTUS, sp. nov.

H. minutissimus, cauda subgraduata: pileo, nucha, uropygio et tectricibus alarum cinereis ex parte ferrugineo limbatis: fronte pallidiore: interscapulio, tergo et scapularibus castaneis: stria supra-oculari, regione parotica, fascia cervicali transversa, tectricibus caudæ superioribus et gastræo candidis: subalaribus albis nigricante fasciatis: rectricibus et remigibus fusco-nigris albescente aut flavescente terminatis, albo guttatis et transversim fasciatis: remige prima extus albo marginata: long. tota 6·9, rostri ab angulo oris 0·5, alæ 4·4½, caudæ 2·10½, tarsi 0·11¾ poll. et lin. Gall.

Hab. In ripis Nili Albi.

My specimens of this bird were procured in the mountains of the watershed of Eastern Central Africa, from localities on the Bahr el Abiad, beyond which no European traveller has yet penetrated. The bird is scarcely larger in size than a Lark. At the first glance it was considered as identical with *Falco semitorquatus* (Smith, Ill. Zool. S. Afr. tab. 1). Considerable differences, however, were discovered after a more careful examination: *e. g.* the back is chestnut-brown in both sexes; the colours of the forehead and of the sides of the neck are different; the tail is somewhat graduated, whereas it is said to be slightly rounded in *H. semitorquatus*, and is distinguished by a light-coloured marginal band of nearly two lines in breadth.

I give here the description of a male bird, certainly quite adult. The head above and neck are cinereous, with a somewhat ferruginous shade; the forehead is rather lighter (but not quite white); the head below, a streak above and behind the eye, the ear and the sides of the neck, and, finally, a band across the neck, are pure white. Back and scapularies bright chestnut-brown; rump and wing-coverts cinereous, partly margined with reddish brown; upper tail-coverts white, partly with cinereous longitudinal stripes. Wings and tail black, inferiorly dark brownish grey, with white spots, each of which is interrupted by the shaft of the feather and passes interiorly into transverse

lines : these spots are absent on the first feather of the wing, but its entire outer margin is of a whitish colour. The primaries, secondaries, tertiaries, and the tail-feathers have a rather broad reddish-brown margin near the extremities ; the margin is narrowest on the primaries, although sharply marked. The under-coverts of the wings are greyish white, with blackish transverse bands. The anterior side of the tarsus is covered with feathers for one-third of its length. Bill, cere, a naked ring round the eye, and tarsi yellow ; extremity of the bill bluish ; the posterior and interior claws brownish, the middle and exterior yellowish ; the iris is yellow*. The second primary is the longest, the first and third are rather shorter.

I know nothing of the habits of this rare bird. Up to the present we have received it only from the environs of Méré (*i. e.* mountain) Belenia, on the White Nile, and I do not believe that it ranges beyond lat. 5° N. It is partial to tall trees with thick foliage—for instance, Tamarinds and Mimosas, and probably, like *H. semitorquatus*, feeds on small birds, lizards, and coleoptera. The female appears to be scarcely different from the male.

The other species of *Hypotrionchis* which I have observed in North-Eastern Africa are the following :—

1. *H. SUBBUTEO*.

Sometimes seen in Egypt during the winter ; but it appears to be found there all the year through. I killed two old birds in the months of June and August 1852, in Siut (Upper Egypt), and in Dongola.

2. *H. ELEONORÆ* (Géné).

Rare, and only as a migratory bird in Nubia and on the Blue Nile, but frequent on the madreporc islands of the different parts of the Red Sea. In the month of August 1857, I found three nests in the Archipelago of Dahlak, some of which contained young birds quite recently hatched. (Cfr. Hartlaub in 'Ibis,' 1859, p. 338.)

* The original note has been lost, and I make this statement from memory.

3. *H. CONCOLOR* (Gould, Birds of Eur. tab. 25).

The true *H. concolor* is rare in the tropical parts of North-Eastern Africa. I obtained specimens on the Bahr el Abiad, from Tigreh (Mareb and Valley of the Takásseh) and from Amhara (Lake of Tana and sources of the River Takásseh). I found this bird always singly, and in countries covered with forest, between 2000 and 6000 feet above the level of the sea. The iris is dark brown, and the eye remarkably large. The West-African form (*F. ardosiaceus*, Vieill.), which is found also in Madagascar, is specifically different from the East-African.

4. *H. RUFICOLLIS*, Sw. (Swains. Birds of West Africa, tab. 2.)

This species is not scarce, and is found in pairs on the Blue Nile, southward from the 14th degree to Fazogloa, nearly always on Dolléb-palms. It is only occasionally found in Abyssinia and along the Bahr el Abiad.

5. *H. ÆSALON* (Gm.).

I have found not rarely old and young specimens of this pretty species in Egypt, between the winter and the month of May, especially in the more northern parts. It resorts by preference to the acacias and sycamores in the cultivated portions of the country.

6. *H. HORUS*, Heugl. (*Falco gracilis*, A. Brehm in Naumania, 1856, p. 232, cum fig.)

I have rarely observed this species in the rocky deserts of Egypt and Nubia. A. Brehm has described a young specimen of this species, killed by myself in August 1851 near the so-called "Fossil Forest," at the Mokatam Mountains. The figure published by him is from a drawing made by me from nature. The young specimens of this species are very similar to those of *F. eleonore*, but the two birds are decidedly different. The plumage of the old bird is not known to me, but only an intermediate coloration, with the upper parts slate-blue, spotted with darker colouring, as in *F. ruficollis*.

The *Falco semitorquatus* of Sir A. Smith is said by De Filippi (Rev. Zool. 1853, p. 289) to occur on the upper parts of the Bahr el Abiad, but I suppose that that learned ornithologist has confounded it with my *H. castanonotus*. So far as I know, *Falco*

semitorquatus has been found hitherto only in South Africa, in the country of Old Latakoo.

II. *CIRCAËTUS ZONURUS*, P. Würtemberg. (Plate XV.)

C. cinereo-fuscus, subtus pallidior, epigastrio, ventre et hypochondriis transversim albo fasciatis, subcaudalibus et tibiis albis, brunneo fasciatis; cauda alba, hujus basi et fasciis duabus latioribus nigris: remigibus et rectricibus supra fusco-cinereis, subtus albidis nigro terminatis et fasciis transversalibus vi-ix distinctissimis notatis: subalaribus candidis ex parte dilute fusco variegatis: long. tota (maris adulti) 19·5, alæ 14·9, rostri a rictu $1\frac{1}{2}$, tarsi $2\frac{3}{4}$, caudæ 7·9 poll. et lin. Gall.

Hab. In ripis Nili Albi.

Prince Paul von Würtemberg collected a specimen of this species of *Circaëtus* nearly twenty years ago in the southern part of the province of Fazogloa, between the Blue Nile and the rivers Túmad and Yabús. Although marked in so noticeable a way, it has not yet been accurately described with the name which properly belongs to it, but only mentioned in some ornithological communications, such as the 'Systematische Uebersicht' of the birds of North-Eastern Africa of Dr. E. Rüppell. The only specimen known until lately is in the collection of its discoverer. It has been shortly characterized by J. v. Müller, in his 'Contributions to the Ornis of Africa,' as *Circaëtus cinerascens*; but the figure there given by him is not to be recognized. The species was not found again until the year 1853, when I discovered it on the banks of the Beni-Schangallo, and at a later period on the Bahr el Abiad, and sent specimens of it to several European museums. *Circaëtus zonurus* is the smallest of the African species of *Circaëtus*, measuring only from 19 to 20 inches (French) in length. The bill is very robust; the face is well provided with strong bristles; the head and eyes are large, the former being surrounded by broad feathers, which the bird, when excited, can raise up, like *Helotarsus ecaudatus*. The wings are comparatively long, without extending to the extremity of the tail, which is somewhat rounded. The tarsi are covered with feathers for nearly one-half their length, and strongly reticulated; the claws are robust, and but slightly bent. Each toe has anteriorly on its upper surface two entire shields, whilst the two or four follow-

ing are divided along the middle. The region below the eye is covered with short, dense, downy feathers beneath the bristles. The upper parts of the body are smoky grey; the sides of the forehead whitish; the cilia black; the uropygium and the upper tail-coverts are dark coffee-brown, with white margins; the under parts greyish brown; sides and middle of the belly with white cross-lines and dots; under tail-coverts and feathers of the tarsi white, the latter with light-brown cross-lines, the former with scattered broadened arrow-shaped spots of the same colour. Wings above dark ash-grey; below whitish, with broad brownish-black tips and narrow well-marked dark cross-bands, on the primaries from four to six, but increasing in number and breadth on the secondaries. The inner webs of the primaries become lighter towards the roots. The bend of the wing and under wing-coverts are pure white, the latter with some brownish transverse or arrow-shaped spots in younger birds: tail white, with the base blackish, sometimes with a dirty greyish tinge above, with two broad brownish-black cross-bands and a narrow whitish extremity. Some wing-feathers, apparently quite recently developed, show white margins. The fourth primary is longest, extending nearly to the end of the tail; the third is rather shorter; the first is nearly as long as the eighth. The primaries from the third to the fifth are emarginated exteriorly, and from the second to the sixth interiorly. The whole length of an adult male is 19 in. 5 lin.: wing 14 in. 9 lin.: bill from gape 1 in. 5½ lin.: tarsus 2 in. 7¾ lin.: tail 7 in. 9 lin.: middle toe 1 in. 5 lin., claw of same 9¼ lin.: hind toe 9½ lin., claw of same 10 lin. (French measurement).

The plumage of the *immature* bird is of a more dirty brownish-grey colour, the white transverse streaks on the belly are fainter, and the scapularies have ferruginous margins. The male and female are scarcely distinguishable in colour, and very little different in size.

The iris is light brownish yellow; bill and cere pale yellow, the former with horny-black extremity; feet bright ochreous; nails horny black.

I am sorry not to know anything about the habits of this bird. I myself saw it only once, perched on a mimosa which

was half-withered and scarcely 15 feet high, above a narrow fissure in the rocks. This specimen was not shy at all, and permitted my approaching it to a distance of 40 yards. The specimens which were brought killed to me, had been also found in similar localities, namely along torrents surrounded by groves of trees, and never in the open spaces which form the favourite resorts of *C. gallicus* and *C. pectoralis*. If I recollect right, the contents of the stomach of the one killed by myself were entirely composed of frogs.

The range of *C. zonurus*, on the sources of the Nile, does not appear to extend northwards beyond 10° North lat. I have never received it from Abyssinia, or Kordofan, or from the northern parts of Sennaar.

The figure of this bird given by J. von Müller, under the name *Circaëtus cinerascens*, is very incorrect: the head is much too small; the bristles round the base of the bill are omitted; the general coloration is too light; the lower covers of the tail are grey instead of white; the feet are too slender and shielded, instead of reticulated; the nails are too large; the transverse bands on the lower side of the tail much too light, and those on the wings much too dark, compared with the ground-colour!

I take this opportunity of adding remarks on the other species of *Circaëtus* living in Africa.

1. *CIRCAËTUS GALLICUS*, Gm. (*A. brachydactyla*, Meyer and Wolf.)

The European species of *Circaëtus* makes its appearance in Egypt in pairs or small flocks in the month of September, and goes upwards along the banks of the Nile to the prairies of Kordofan, Sennaar, &c., where it stays during the winter, returning through Egypt in February and March. It is not unfrequently seen during the autumn sitting on low hills and sandbanks, sometimes in shallow water, hunting for reptiles, which are driven out of their holes and retreats by the increasing waters of the river. In the prairies, this species is found sometimes at a very great distance from water; and single specimens appear to stay all the summer within the tropics, as I infer from an individual which I killed in Eastern Sennaar in the middle of

May. Rüppell has found this species in Arabia, and A. Brehm has established a separate species, *C. orientalis*, which, he says, is a stationary bird in Egypt: this species is said to be somewhat smaller than *C. gallicus*; all the lower parts are white, with light-brown spots, and the throat is not dark; the tail of the female is 2 inches shorter than in *C. gallicus*. Scarce in West Africa (Hartlaub).

We must wait for future researches to decide the question whether *C. fasciatus*, mihi (List of Birds of N.E. Africa, no. 29), proves to be a good species. I have not, at present, the typical specimen with me, upon which the species was established. It is similar to *C. gallicus* in size and coloration of the back; all the lower parts are white, with broad dark cross-bands. I have observed it in the prairies of Southern Kordofan and Eastern Senaar during the winter, where it appears to occur rather frequently.

2. CIRCAËTUS THORACICUS, Cuv. (*C. pectoralis*, Smith.)

This species is not scarce in Abyssinia and round the sources of the Nile. The most northern part of its range, according to my observations, is the province of Dongola, where we killed an old female in the month of August, in the neighbourhood of the ruins of Argo.

3. CIRCAËTUS CINEREUS, Vieill., is, according to Jules Verreaux, the immature state of *C. thoracicus*, which opinion, however, requires further confirmation. *C. cinereus* is more slender, has a brown iris and lead-coloured feet. The markings of the tail, besides, are very different, and I have never observed intermediate forms between the two birds. Dr. Rüppell found *C. cinereus* in Abyssinia, and I obtained examples of it on a tributary of the river Rahad, and on the Blue Nile. I have mentioned, in my list of birds of N.E. Africa, that two of the specimens collected by me differ from Rüppell's individual in having pure white and very narrow bands across the tail. Rüppell's specimen is very large, measuring 2 feet 3 inches in length. This naturalist says (Neue Wirbelth. p. 35) that his *Falco funereus* (which certainly is identical with *C. cinereus*, Vieill.) differs from *C. gallicus* and *C. pectoralis* in having the bill much stronger, the inner and hind toes provided with very

robust claws, and the tail rectangularly truncated, and short, compared with the wings.

4. *CIRCAËTUS MELANOTIS**, Verreaux, has been discovered only lately in West Africa (Bissao), and is described by Hartlaub (Syst. Ornithol. W. Afr. p. 7).

I take this opportunity to remark, that *Spizaëtus zonurus*, Müll. (Beiträge zur Ornithol. Afr. tab. 1), has been described by Prince Bonaparte as *Spizaëtus spilogaster* (Rev. Zool. 1850, p. 487), and that I have added another synonym, *Spizaëtus leucostigma* (Syst. Ueb. d. Vög. N. O. Afrika's, p. 17, sp. 25). This audacious bird of prey is not found in Upper Abyssinia, as stated by v. Müller, but, on the contrary, in the lowlands, in the so-called Kolla, and in Eastern Sennaar, downwards to the Blue River. It occurs most frequently, always in pairs, in the valleys of Takepeh and Mareb, and in the province of Galabat, along the torrents joining the rivers Schimfa (Rahad) and Guang, where it appears to arrive in the rainy season (April and May), and to build its nest in high trees. I also observed several times, in the same localities, the beautiful *Aquila verreauxii*, Less., which species, without any doubt, is entirely different from *Aquila vulturina* (Daud.) (Levaill. Ois. d'Afr. tab. 6). The latter species has not been recognized again, to my knowledge. *Aquila verreauxii* penetrates still more deeply into the mountains than *Circaëtus spilogaster*, not rarely into the "Deka," which region begins at from five to six thousand feet above the level of the sea.

The supposed aberrant plumage of very old specimens of *Aquila bonelli*, as described by A. Brehm in 'Naumannia,' is probably referable to *Spizaëtus spilogaster*, DuBus. This bird, however, is in fact an intermediate form between *Aquila* and *Spizaëtus*, to which *A. bellicosa*, Daud., most approaches.

[To be continued.]

* In company with Mr. J. H. Gurney, we have carefully examined the two types of this species, which are now in the Norwich Museum. There is no doubt of their identity with *Circaëtus zonurus*, as here described, and the range of this bird is thus extended into Western Africa. Mr. G. R. Gray's *Circaëtus fasciolatus*, Mus. Brit., from Natal, is, again, a very closely allied bird, and may ultimately prove to be specifically inseparable.—ED.